

# INVESTIGATOR'S ANNUAL REPORT

## National Park Service

All or some of the information provided may be available to the public

<b>Reporting Year:</b> 2005	<b>Park:</b> Oregon Caves NM
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<b>Permit#:</b> ORCA-2004-SCI-0005	
<b>Park-assigned Study Id. #:</b> ORCA-00025	
<b>Project Title:</b> Distribution and relative abundance of bat species in Crater Lake National Park, Redwood National and State Parks, and Oregon Caves National Monument	
<b>Permit Start Date:</b> Aug 01, 2004	<b>Permit Expiration Date</b> Feb 28, 2005
<b>Study Start Date:</b> Aug 01, 2004	<b>Study End Date</b> Feb 28, 2005
<b>Study Status:</b> Completed	
<b>Activity Type:</b> Inventory	
<b>Subject/Discipline:</b> Mammals	
<b>Objectives:</b> The objectives of this study were to determine the effect of bat friendly gates on bat activity at cave entrances in ORCA.	
<b>Findings and Status:</b> <p>At ORCA, I captured 5 bats representing 4 species during 3 nights (343.2 m2 net hours of netting effort in mist nets and 9.75 m2 harp hours of effort. My primary objective at ORCA (at the request of John Roth) was to survey 2 cave entrances (Monument Deep and High Hopes) with mock gates present and absent to determine if gating the openings would affect bat activity. I also used a tarp at the 110 cave entrance to determine if restoring natural air flow to the opening would affect bat activity. Tarps were deployed so that approximately one-half of entrance gate was covered to mimic the natural entrance dimensions of the opening before it was expanded for an entrance/exit to the cave system.</p> <p>The two focal sites, Monument Deep and High Hopes, were acoustically surveyed on 7 and 8 September with mock gates present (obstructed), and on 9, 10, and 13 September with mock gates absent (non-obstructed). At Monument Deep, an average of 32.5 Anabat sequence files were recorded at the gated opening and an average of 35.3 were recorded non-gated. At High Hopes an average of 30 sequence files were recorded gated and 12.5 sequence files non-gated (my non-gated estimate is based on 2 nights due to detector malfunction). Additionally, at the 110 cave entrance, 87 sequence files were recorded without the tarp deployed, and 80 sequence files were recorded with a tarp covering approximately one-half of the bat-friendly gate.</p> <p>Long-eared myotis was the most commonly captured bat (40.0%), followed by Townsendâs big eared bat (Corynorhinus townsendii) (20.0%), California myotis (20.0%), and fringed myotis (20.0%). At ORCA, 100.0% of my captures were males. All of my bat captures came from harp traps; unfortunately I was unsuccessful capturing bats at the upper chalet pond using mist nets during two attempts.</p>	
<b>For this study, were one or more specimens collected and removed from the park but not destroyed during analyses?</b> No	

<b>Funding provided this reporting year by NPS:</b> 18000	<b>Funding provided this reporting year by other sources:</b> 0
<b>Fill out the following ONLY IF the National Park Service supported this project in this reporting year by providing money to a university or college</b>	
<b>Full name of college or university:</b> n/a	<b>Annual funding provided by NPS to university or college this reporting year:</b> 0